

2015

Permits & Inspections Business Plan



City of Sugar Land

PERMITS & INSPECTIONS BUSINESS PLAN

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EXECUTIVE SUMMARY

The Permits & Inspection Department provides addressing, plan review, and permit and inspection services for citizens, property owners, businesses, contractors, and authorized agents. Those who intend to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure (including swimming pools) must obtain permit and inspection services. This also includes any electrical, gas, mechanical, irrigation or plumbing systems that is regulated by City Council-adopted International Building Codes and the National Electrical Code codes as amended by ordinance. These services are an uninfluenced source of quality control with the purpose of satisfying minimum building requirements.

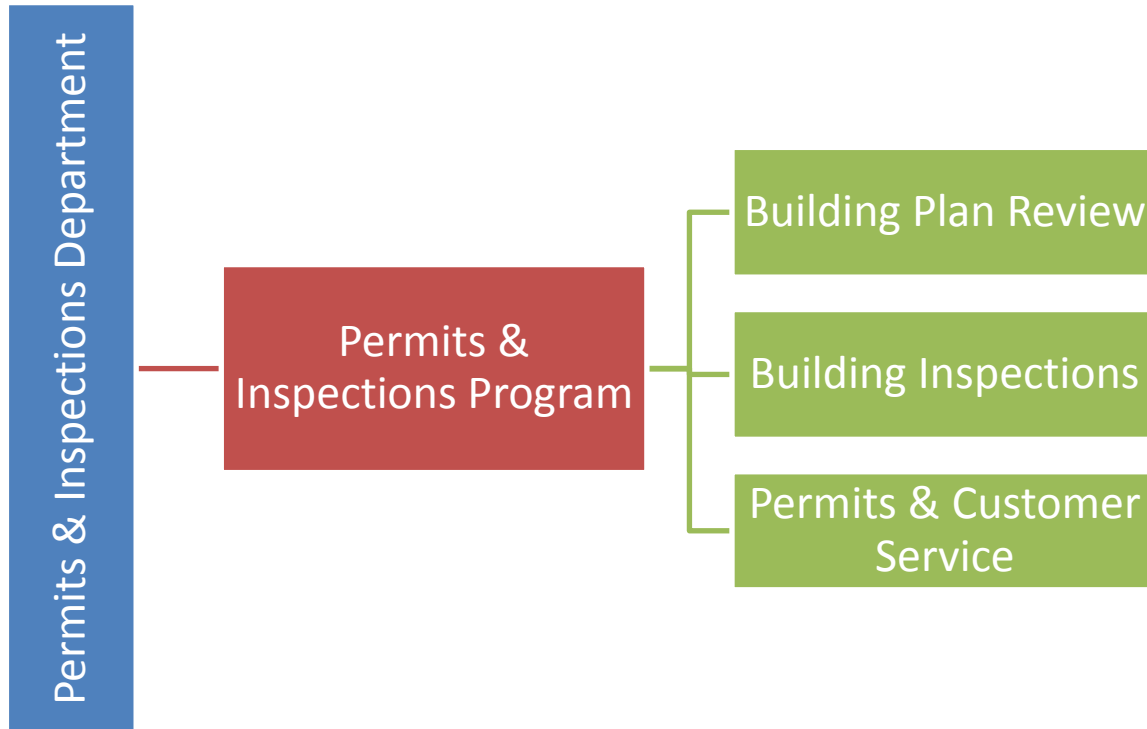
Minimum building requirements safeguard public health, safety and general welfare promoting structural strength means of egress in facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety. Minimum building requirements preserve life and property from fire and other hazards attributed to the built environment and provide safety to fire fighters and emergency responders during emergency operations.

Service activities are recorded electronically and are reported monthly and quarterly. Annual customer service surveys are also conducted to obtain feedback.

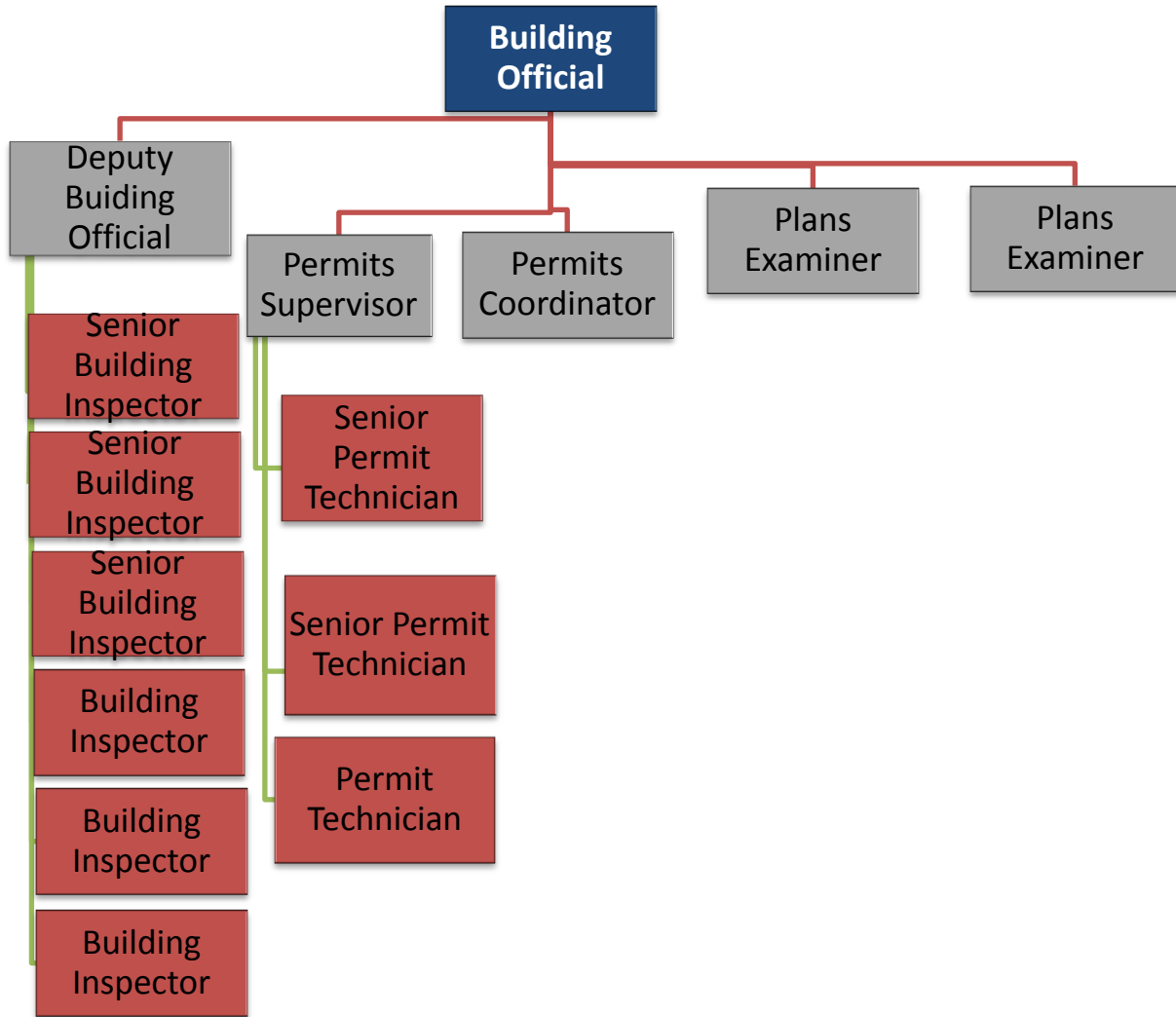
MISSION STATEMENT

The Permits and Inspections Department is committed to the public's safety and enhances quality of life by providing plan review and other permit and inspection services that ensure code compliance in the development and redevelopment of buildings and their components.

ORGANIZATIONAL & FUNCTIONAL STRUCTURE



CURRENT ORGANIZATIONAL STRUCTURE



2015 STRATEGIC PROJECTS

CURRENT DEPARTMENT LED PROJECTS AND INITIATIVES

CITY BUILDING CODE UPDATE

PROJECTS IN WHICH DEPARTMENT IS A TEAM MEMBER

DEVELOPMENT CODE UPDATE

DEFINITION OF CITY CUSTOMER SERVICE VISION

2015 PROGRAM OF SERVICES

PERMITS & INSPECTIONS

PROGRAM SUMMARY

The Permits and Inspections Department is staffed by 15 full-time positions and has an operating budget of \$986,069. Normal business hours are Monday thru Friday 8:00 to 5:00 with flexibility for customer needs and service demands. Permit fees collected prior to the issue of permits fund these services.

The Building Official sets departmental goals and strategies and provides organizational direction and control to accomplish those goals. The Building Official provides budget coordination, oversight and management to the permits and inspections department. Permits & Inspections provides plan review and permits and inspections of residential and commercial buildings based upon the regulatory authority of City Council adopted building codes.

SERVICES AND SERVICE LEVELS

Service: Building Plan Review

The Building Plan Review service is composed of both Residential Building Plan Review and Commercial Building Plan Review.

Residential Building Plan Review

Residential Building Plan review offers a comprehensive review of private residential building construction plans that include verifying plans comply with building, plumbing, electrical, mechanical, fuel gas, energy and other adopted codes.

Permit applications and plans are first submitted to the permit office. Plans are then routed to the plan examiners to verify designs are in compliance with codes and ordinances. Subsequent comments and meetings typically follow to ensure plans are compliant prior to approval. Permits are then issued. Approved plans are required at job sites to verify code compliant construction by inspection personnel.

Residential and miscellaneous plans total over 100 per month and include new houses, swimming pools; home additions and remodeling are reviewed within seven working days.

Commercial Building Plan Review

Commercial Building Plan review offers a comprehensive review of both public and private non-residential building construction plans that includes verifying plans comply with building, plumbing, electrical, mechanical, fuel gas, energy and other adopted codes. Commercial plan review also extends

beyond the City limits and into the limited purpose annexed areas of our extra territorial jurisdiction as well as by development agreements in other areas in our jurisdiction.

Permit applications and plans are first submitted to the permit office. Plans are then routed to the plan examiners to verify designs are in compliance with codes and ordinances. Subsequent comments and meetings typically follow to ensure plans are compliant prior to approval. Approved plans are then required at job sites to verify code compliant construction by inspection personnel.

Commercial plans total over 50 per month and include remodeling and interior build-outs that are minor in nature, where plans have less than 20 pages, are reviewed within five working days. Commercial plans including new ground-up, remodeling and additions that are complex, projects that are over ten thousand square feet, or plans that contain more than 20 pages, are reviewed within fourteen working.

Commercial as-built plans are electronically archived as permanent records.

Service: Building Inspections

Inspection services are provided for commercial and residential permitted projects Monday thru Friday from 7:30am to 4:30 pm by a staff of 3 Inspectors and 3 Senior Inspector. The Senior Inspector's experience and credentials are utilized for large, complicated projects and challenging customer service calls as well as scheduling and routing daily inspections. On occasion the Plans Examiners, Deputy Building Official and Building Official support inspection services. Daily inspection requests can be unpredictable and this service needs to be met on a daily basis. The daily inspections have decrease a little for numbers sake but the complexity of the inspection has increased. The Building inspector is spending more time at one particular jobsite because of the nature of the inspection. This means that his size of the job has increased. The Texas State Board of Plumbing Examiners had added a new requirement for Plumbing Inspectors. Plumbing inspectors are required to obtain a Medical Gas Endorsement to be added to their respective plumbing licenses. This is a mandatory requirement. Medical Gas is a complex system in the hospital setting.

The Building Inspection service includes scheduled inspection requests of private permitted buildings and provides clearance for the release of every natural gas and electrical service in the City limits. Building Inspections are a mobile operation and are responsible for inspections that verify residential and commercial code compliance of building, mechanical, electrical, plumbing, signage, roofing, irrigation, energy, medical gas, swimming pools, driveways and sidewalks and changes of occupancy in commercial buildings along with certain repairs and miscellaneous projects that require permits.

A typical new single family home will have approximately 30 inspections from start to finish. Each phase of construction is inspected before the project can move forward and components are concealed. Large commercial projects often request phased inspections allowing for partial approvals and phased covers. This assists with a projects progress.

Basic Inspections include:

BUILDING

Foundation

Prior to a foundation make up inspection, a form survey must be provided. This can be accomplished at the job site and at the time of an inspection request. The survey must be prepared by a State of Texas registered surveyor.

A foundation inspection will include but is not limited to the following:

- Building setbacks – front, side and rear
- Top of form elevation that meets or exceeds: 12" above the top of the front street curb or 12" above the base flood elevation or 18" above natural grade
- No encroachments
- Foundation shall comply with City of Sugar Land approved drawings.
- Approved applicable plumbing, electrical and mechanical inspections associated with the foundation make up. Plumbing pipes must be sleeved and protected as required by code

Wood Framing

A building frame inspection may be scheduled concurrently with plumbing, electrical and mechanical rough-ins/covers or after those inspections are complete. A building frame will not be approved unless all trade inspections are approved.

A frame inspection will include but may not be limited to the following:

- Framing of walls, joists, rafters, headers, stairs and beams that comply with approved plans
- Wood framing complies with code span charts
- Wood framing does not exceed notching and boring standards
- Blocking, joist hangers, and ledger strips. Verify sizing and nailing requirements
- Required egress such as windows, doors and locks
- Foundation anchor bolts or anchor straps and spacing
- Bracing
- Rafters and joist installations and fastening/nailing
- Collar ties
- Draft stopping, fire blocking
- Wind design for 110 MPH, 3-second gust. Clips, straps and shear-walls are typically part of design.
Must have wind design plan available for Inspector
- Masonry work
- Roof sheathing and covering
- Brick ties are checked concurrently with other inspections
- Attic access
- Fireplaces –must have a gas pressure test

Structural Steel

Structural steel framing may be inspected by the City of Sugar Land and must meet the special inspections criteria of the current adopted code, and the approved building plans. Inspection reports must be provided verifying that required bolting, welding and other elements of construction are in compliance with code and the approved City of Sugar Land building plans.

Building Final

A building final inspection may be scheduled concurrently with plumbing, electrical and mechanical finals or after those finals are complete. A building final will not be approved unless all trade inspections are approved. Gas, water and electricity must be operational.

*Commercial building final inspections do not permit occupancy in and by itself. Commercial projects require approvals from one or more of the following: Fire, Public Works, Engineering and Planning. A Certificate of Occupancy is required for occupancy for all commercial buildings.

*An approved residential building final inspection (single family) allows a resident to occupy a home; and infrastructure inspection groups are notified for a final check of responsibilities. Residential construction is required to obtain a certificate of occupancy.

A building final inspection will include but may not be limited to the following:

- Exterior finishes and components
- Interior finishes and components
- Driveway, sidewalks and flatwork
- Means of egress
- Attic access and ventilation
- Site drainage, code required slab relief above finished grade
- Landscaping
- Permanent address visible from the street 4" numbers,
- Safety/tempered glass
- Stair and guard rail requirements
- Appliance installations
- Special inspection compliance reports.

PLUMBING

Sewer/Ground

A sewer/ground inspection can be scheduled together or separately and will include but may not be limited to the following:

- **Water test:** minimum of 10' water column above the highest fitting or the highest point in the completed system for 15 minutes, or
- **Air test:** maintain a gauge pressure of 5 psi for 15 minutes
- Minimum 4" Schedule 40 PVC sanitary sewer required for residential construction. (City Ordinance)
- Minimum 6" SDR 26 or equal sanitary sewer required for commercial construction. (City Ordinance)
- Sewer/Ground piping shall maintain grade in accordance with adopted code
- Sewer/Ground clean outs are required in accordance with adopted code
- Sleeve drain lines passing thru footings in accordance with adopted code
- Water piping installed within a foundation shall comply with adopted code
- Building water service line must be buried a minimum of 12" deep and of a code approved material
- Water service line shall be installed and tested during sewer/ground inspection or with top-out
- Workmanship

Top out

- Water & Air test: same as sewer/ground
- Shield plates are required for concealed piping, other than cast-iron or galvanized steel. Note adopted code for specific requirements
- Notching & boring of wood frame construction shall comply with adopted code
- Drain, waste and vent piping shall maintain proper slope (grade) in accordance with adopted code
- Water piping shall be protected in all areas subject to freeze damage. Examples of such areas include outside of a building, in exterior walls, in attics and crawl spaces

- Water heater installations must comply with code and manufacturers specifications
- All venting through roof (VTR) shall meet adopted code requirements
- Gas piping shall be protected, sized, supported and tested in accordance with adopted Fuel Gas Code
- Workmanship

Gas Turn On (GTO)

- All piping and valves are installed and capped to prevent an accidental release of gas
- An approved calibrated gauge with the code required testing pressure
- Equipment venting such as water heaters and furnaces is properly installed
- Evaluate gas piping workmanship in attic space. (access to attic must be provided)

Plumbing Final

- Vents through roof installations
- Hose bib back flow
- Installation of water meter box (s)
- Sanitary sewer cleanouts
- Plumbing fixture installations. (water test for leaks)
- Water lines subject to freeze damage are insulated
- A/C condensation lines properly connected to active trap
- Access panels for bath tubs (where applicable)
- Water valves & gas valves are accessible and operable
- Approved back flow devices for water supply (where applicable)

MECHANICAL (HVAC)

Cove/Rough In

Register and duct placement, attachment, support (two side minimum for registers).

- Return air, properly sized & sealed
- Auxiliary and secondary condensate drains installation
- Proper insulation, support and protection of refrigerant lines
- Proper vent terminations, (ex. - vent hood exhaust, furnaces, clothes dryers, vent fan exhaust)
- Dryer vent [maximum 25 feet] Note Mechanical Code or Residential Code method of measuring
- Mechanical equipment (source of ignition) location in relationship to gas meter check with local gas provider
- Workmanship

HVAC Final

- Proper operation of units with instruction manual available
- Access walkway(s) (cat walk) and unit(s) access and working clearances
- Disconnects for mechanical equipment
- Smoke detector/fan shut down operations (commercial units)
- Equipment vents
- Installation of units including but not limited to support, disconnect, conduit and sealing
- Equipment labeling

ELECTRICAL

Temporary Power Pole

- Address must be visible and ledge able
- Pole/equipment must be properly supported
- Correct circuit, wiring, protection, burial depth

Cover/ Rough In:

- Protection of wiring including nail plates, placement and fastening
- Receptacle spacing including walls and counters
- Circuitry: including kitchen (small appliances), laundry room(s), bed room(s), bath room(s), and etc
- Wire sizing (12-2 minimum per City Ordinance)
- Fastening and supporting of wiring/conduit and equipment
- Grounding
- Bonding
- Box fills including receptacles, lightings, gutters, j-boxes and etc
- Code approved wiring methods
- Attic lighting
- Closet lighting, especially note clothes closets
- Notching and Boring standards (wood frame construction)
- De-ratings particularly for bundled wiring
- Smoke detector wiring
- Di-oxidizer
- Disconnects
- HVAC – General use receptacle within 25 ft. and GFCI as required. Conductor provided to power equipment must be sized according to the adopted code

Temporary Cut-in (TCI)

- Electrical underground/overhead approval
- Service entrance conductor sizing
- Over current protection sizing (main breaker/breakers)
- Grounding
- Bonding

Final

- All installations operable and ready to test including ground fault and arch fault circuit interrupters
- Main panel must be labeled
- Any 12-3 systems shall be bar tied
- Smoke detectors tested for proper operation
- Each receptacle will be continuity tested
- Each light fixture must be equipped to test
- Closet lighting clearances
- Spa/hydro tub circuit test
- Weather proof exterior panel(s), fixtures, boxes, conduits and etc .

SWIMMING POOL

- Location- Layout of excavation area per approved plans
- Steel – Structural pool make up
- Deck – Structural make up of deck

- Bond – Electrical bond of pool steel and any metal within 5’ of water’s edge
- GTO – gas test for pool heater
- Final – Verify enclosure, gates, alarms, back flow and etc.

SIGN

- Location – Verify per approved plans
- Foundation – Structural make up
- Final - Verify completion per approved plans

Inspections are recorded and resulted in the field electronically and are available for review by stake holders with internet access or by a traditional telephone call. Inspections are electronically archived as permanent records.

Building inspections services are crucial to maintaining and enhancing the Building and Fire Departments Insurance Services Office (ISO) ratings which ultimately impact insurance rates for homeowners. Stringent building code compliance gives the Insurance Services Organization confidence knowing that construction in Sugar Land is of acceptable structural quality and meets fire protection requirements.

Service: Permits & Customer Service

Permitting and Customer services are provided by a staff of five which include two senior permit technicians, a permit technician, a permit coordinator and the permit supervisor. Assistance is provided by building inspectors, plans examiners, the deputy building official and the building official.

Permits are issued from 8:00 am to 5:00 pm Monday thru Friday to walk-in customers and by facsimile. Customers have the payment option of establishing escrow accounts and are able to complete certain permits electronically. Future technology advances may expand our electronic permitting ability.

Issuing permits includes the process of adding addresses that are not part of the land management data base, verifying that the permit applicant meets registration requirements, has completed the appropriate applications and submits the required number of drawings. Permitting also verifies construction values and determines the types of required inspection necessary for the permit being issued. Permits issued include buildings, fire, electrical, mechanical, plumbing, fuel gas, signage, roofing, irrigation, swimming pool, miscellaneous, driveways and sidewalks. Permits are also issued for demolition and commercial name changes. Solicitor licenses are reviewed, background checked and issued by departmental personal.

Basic steps to issue a permit and solicitor license include:

CONTRACTOR REGISTRATION

- Applicant completes appropriate form
- Verify on appropriate web sites required State license information for:
 - Mechanical
 - Electrical
 - Plumbing
 - Irrigation
 - Fire
- Show proof of current insurance that is required by City Ordinance and State Plumbing Board
- Enter information into permit data base that qualifies applicant as being registered

ISSUE PERMITS

- Review applicants applications for correctness
- Verify that all *plan review approvals have been met (where applicable)
- Obtain contract documents verifying construction costs for accurate permit fee charges
- Receipt permit fees that are paid by check, cash or money order for collection by the Treasury Department and provide direct collection service of fees paid by credit card or escrow account transactions
- Verify payments to Treasury
- Interview applicant and set up required inspections in the permit data base, this includes providing applicant with information regarding inspections required by the fire department, food services and etc.
- Issue permit and release the approved plans to the applicant

*Certain over the counter permits are issued by permit staff and are based on their review. Examples of these are replacement driveways and roofs, foundation repair work as well as banner signs**. Permits that do not require a plan to be reviewed are issued over the counter on a daily basis. Examples include water heater and air conditioning replacements.

** Code Enforcement is notified when banner permits are issues.

SOLICITOR LICENSES

- Review applicants applications for correctness
- Verify that license fees are paid to Treasury
- Perform a web based back ground check of applicant, City Ordinance 1498 requires denial of licenses for certain offenses
- Route documents to Deputy Building Official for review
- Approvals are entered into a spreadsheet, a laminated photo I D badge is made and provided, a copy of the No Solicitation Registry and Ordinance 1498 is provided to the applicant
- Denials are also documented
- Manage and address homeowner calls regarding solicitors and regulations (usually complaints)

The Permit Office and its staff provide many aspects internal and external customer service. They are the key intake point for receipt of documents for Fire, Planning and Engineering. Staff is also the Cities point of contact for all electrical and natural gas service releases. They also answer an average of over 100 calls a day. Permitting perform clerical duties that include sorting and filing documents, conducting research, and review both internal and external customers' information for accuracy and completeness.

CUSTOMER SERVICES INCLUDE BUT ARE NOT LIMITED TO:

- Receive, time stamp and route plans that are delivered for other departments including site plans, fire protection plans and Mylar's, contact appropriate department personnel
- Direct non-permit walk in and telephone customers appropriately(screen calls)
- Able to effectively communicate with Spanish speaking customers
- Solve contractors basic inspection and plan review questions
- Effectively communicate with Centerpoint Energy and other private utilities
- Work with City Inspectors and Personnel including Fire, Utilities, Planning and Engineering
- Solve addressing problems
- Problem solve by asking appropriate questions
- Verify accurate plans submittals for simple routing by Planning
- Respond to customers in a timely manner

Permits issues Certificates of Occupancy for commercial and *residential building permits. Application forms are collected and responsible departments are notified to verify compliance of their respected codes and ordinances prior to final issue of certificates.

TYPICAL PROCESSING OF COMMERICAL CERTIFICATES OF OCCUPANY:

- Receipt of completed application
- Electronic copy of as-building building plans
- Receipt of Sales-Tax ID
- Check list sign off of various departments associated with development
- Process document certified by the Building Official
- A temporary certificate of occupancy is permitted by code and issued for time restricted occupancy if life safety code items are met

*Residential certificates of occupancy are primarily issued after their building final inspection is approved.

Permits and Inspections program address the City Council goal of "Well Planned Community" and the objective "New Developments and Redevelopments Consistent with City Vision, Comprehensive Plans, Policies and Standards".

SERVICE LEVEL EXPECTATIONS

PERMITS & INSPECTIONS			
Service	Service Level Expectation		
Building Plan Review (Residential)	Review residential building plans that include electrical, mechanical, plumbing, fuel gas and energy compliance details in accordance with City Council adopted codes.		
Building Plan Review (Commercial)	Review commercial building plans that include electrical, mechanical, plumbing, fuel gas, energy compliance and private site details in accordance with City Council adopted codes.		
Building Inspections	Inspections performed including commercial and residential building, plumbing, electrical, mechanical, irrigation, energy compliance and site construction.		
Permits	Process private construction permits after all approvals and reviews are completed. Excellent customer service.		
Permits & Inspections		Expected Result	
		FY14	FY15
Building Plan Review (residential)	Review completed or comments provided within 7 working days after receipt of proper submittal. Permit issued after all comments are addressed.	95%	95%
Building Plan Review (commercial)	Major projects completed or comments provided within 14 working days. Minor projects completed or comments provided within 5 working days. Permit issued after all comments are addressed.	95% for both minor and major projects.	95% for both minor and major projects.
Building Inspections	Inspections requested before 7:00 AM of each business day completed same day.	95%	95%
Permits	Permit issued every working day on a first come, first serve basis. Faxed permits issued when customers are not waiting. Telephone calls are answered within three rings.	100%	100%

Reference Materials

The Department's activities are primarily governed by: City-Adopted Building Codes and the 2009 International Code Council building standards.